

CLAIMS

What is claimed is:

1. In a data communications network, a method for providing differentiated services with at least one network server, comprising the steps of:

providing a plurality of content providers each offering users a plurality of levels of services;

creating with individual ones of said plurality of content providers at least one service level table and at least one resource requirement table;

merging said plurality of resource requirement tables into a merged resource requirement table; and

at said at least one network server, assigning differentiated service levels to incoming user requests in accordance with said service level tables and in accordance with said merged resource requirement table.

2. A method as in claim 1, wherein said at least one network server forms a part of a server cluster.

3. A method as in claim 2, wherein there are a plurality of said server clusters coupled to said data communications network.

4. A method as in claim 3, wherein said network server collaborates in serving user requests with at least one other network server through inter-cluster communication.

5. A method as in claim 1, further comprising a step of providing a network edge server communicating with another network edge server to redirect requests.

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6. A method as in claim 1, further comprising a step of providing a network edge server communicating with a network core server to redirect requests.

7. A method as in claim 1, further comprising a step of providing a network edge server communicating to Internet users for enabling Internet users to yield current services in exchange for credit.

8. A method as in claim 1, wherein said service level table comprises an identification of a user and a corresponding user service level.

9. A method as in claim 1, wherein said service level table comprises a URL and a corresponding URL service level.

10. A method as in claim 1, wherein said step of merging said plurality of resource requirement tables merges tables from a plurality of different content providers based on preexisting business relationships between a network service provider or content hoster and said content providers.

11. A method as in claim 1, wherein said step of assigning differentiated service levels comprises steps of:

extracting a user identification from an incoming request; and

assigning one of a plurality of differentiated service level to said incoming request based at least in part on said user identification..

12. A method as in claim 11, wherein said user identification comprises a request destination.

13. A method as in claim 11, wherein said user identification is based on a secure protocol.

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14. A method as in claim 11, wherein said user identification is based on a HTTP method type.

15. A method of claim 1, wherein said differentiated service level is variable, and is made a function of at least operational criteria.

16. A method as in claim 1, wherein said differentiated services are employed for targeted advertisement purposes by identifying a service level of a user request and dynamically placing at least one targeted advertisement on content for said user.

17. A data communications network comprising network servers, content providers, and service providers, said network operating so as to provide users with differentiated services by defining, for individual ones of said plurality of content providers, a plurality of levels of services for users, for creating with individual ones of said plurality of content providers at least one service level table, wherein individual ones of users are assigned to one of said plurality of levels of service, and at least one resource requirement table for defining at least a minimum set of resources required for realizing individual ones of said plurality of service levels, said network operating to merge said plurality of resource requirement tables into a merged resource requirement table for use by a particular one of said network servers, and wherein said particular one of said network servers assigns differentiated service levels to incoming user requests in accordance with said service level tables, and in accordance with said merged resource requirement table and currently available resources.

18. A network as in claim 17, wherein a plurality of network servers are grouped into server clusters.

19. A network as in claim 18, wherein there are server clusters at a core of said network, and server clusters at an edge of said network.

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20. A network as in claim 18, wherein said network server collaborates in serving user requests with at least one other network server through inter-cluster communication.

21. A network as in claim 19, wherein said server clusters at the edge of the network communicate with users and with one another to redirect requests.

22. A network as in claim 19, wherein a server cluster at the edge of the network communicates with a server cluster at the core of the network to redirect requests.

23. A network as in claim 19, wherein said server clusters at the edge of the network communicate with users for enabling users to yield current services in exchange for credit.

24. A network as in claim 17, wherein said service level table comprises a URL and a corresponding URL service level.

25. A network in claim 17, wherein said network merges said plurality of resource requirement tables from a plurality of different content providers based on preexisting business relationships between a network service provider or content hoster and said content providers.

26. A network as in claim 17, wherein said network server comprises a request dispatcher for extracting a user identification from an incoming request and assigning one of a plurality of differentiated service levels to said incoming request based at least in part on said user identification..

27. A network as in claim 26, wherein said user identification comprises a request destination.

28. A network as in claim 26, wherein said user identification is based on a secure protocol.

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29. A network as in claim 26, wherein said user identification is based on a HTTP method type.

30. A network as in claim 17, wherein said differentiated service level is variable, and is made a function of at least operational criteria.

31. A network as in claim 17, wherein said differentiated services are employed for targeted advertisement purposes by identifying a service level of a user request and dynamically placing at least one targeted advertisement on content for said user.

32. In a data communications network comprising network servers, content providers, and service providers, at least one data processor operating under control of a stored program resident on a memory media, said stored program directing operation of said data processor to provide users with differentiated services by defining, for individual ones of said plurality of content providers, a plurality of levels of services for users, for creating with individual ones of said plurality of content providers at least one service level table, wherein individual ones of users are assigned to one of said plurality of levels of service, and at least one resource requirement table for defining at least a minimum set of resources required for realizing individual ones of said plurality of service levels, said program further directing operation of said at least one data processor to merge said plurality of resource requirement tables into a merged resource requirement table for use by a particular one of said network servers, and wherein said particular one of said network servers assigns differentiated service levels to incoming user requests in accordance with said service level tables, and in accordance with said merged resource requirement table and currently available resources.

33. A program as in claim 32, wherein said resources comprise at least one of numbers of available servers, available memory capacity, and available

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bandwidth.

34. A program as in claim 32, wherein said program further controls operation of said at least one data processor to redirect an incoming user request to a network server having sufficient available resources to provide a specified level of service for a user request.

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